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EXAMINER	
PAULA, CESAR B	

ART UNIT	PAPER NUMBER
2178	11

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/348,652	GRAHAM, JAMEY	
	Examiner	Art Unit	
	CESAR B PAULA	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,8,10-15,17,18,20-25,27,28 and 30-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7-8, 10-15, 17-18, 20-25, 27-28, 30-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment filed on 1/29/2003.

This action is made Non-Final.

2. In the amendment, claims 6, 9, 16, 19, 26, and 29 have been canceled. Claims 31-36 have been added. Claims 1-5, 7-8, 10-15, 17-18, 20-25, 27-28, and 30-36 are pending in the case. Claims 1, 10-11, 20-21, and 30 are independent claims.

3. The rejections of claims 1-5, 8, 11-15, 18, 21-25, and 28 under 35 U.S.C. 102(e) as being anticipated by Ball et al "Software Visualization in the Large", IEEE Computer, vol.29, No.4, pp. 33-43 (4/1996, as disclosed in IDS paper 2) have been withdrawn as necessitated by the amendment.

4. The rejections of claims 10, 20, 30, 32, 34 and 36 under 35 U.S.C. 103(a) as being unpatentable over Aalbersberg (Pat.# 5,946,678, 8/31/99, filed 1/11/95, as disclosed in IDS paper 3) have been withdrawn as necessitated by the amendment.

5. The rejections of claims 7, 31, 17, 33, and 35 under 35 U.S.C. 103(a) as being unpatentable over Ball, in view of Greenberg et al, hereinafter Greenberg "Awareness through Views in Relaxed-WYSIWIS Groupware", Proceedings of Graphic Interface, Toronto, Canada (1995, as disclosed in IDS paper 3) have been withdrawn as necessitated by the amendment.

Drawings

6. Color photographs and color drawings are acceptable only for examination purposes unless a petition filed under 37 CFR 1.84(a)(2) is granted permitting their use as acceptable drawings. In the event that applicant wishes to use the drawings currently on file as acceptable drawings, a petition must be filed for acceptance of the color photographs or color drawings as acceptable drawings. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and an amendment to the first paragraph of the brief description of the drawings section of the specification which states:

> The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the U.S. Patent and Trademark Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings have been satisfied.

The Applicant has indicated that a submission of a petition for colored photographs has been deferred until allowable subject matter is indicated (page 10, lines 17-19).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-5, 7-8, 11-15, 17-18, 21-25, 27-28, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ball et al "Software Visualization in the Large", IEEE Computer, vol.29, No.4, pp. 33-43 (4/1996, as disclosed in IDS paper 2), in view of Wroblewski et al, hereinafter, Wroblewski (Pat.# 5,479,600, 12/26/1995, as disclosed in IDS paper 3).

Regarding independent claim 1, Ball discloses the color-coding of a document based on a concept of interest—"code age"-- input by a user. Color-coding takes place by analyzing the document and color-coding or identifying locations of interest in the document as per the concept of interest indicated by the user-- (page 4, 2.1, and fig. 1).

Furthermore, Ball discloses a right pane—*visual indicator*-- for indicating the display of a concentration of the analyzed new, and old code by their respective color-coding. A user can look at the right pane thumbnail and view the concentration of the old and new code throughout the document, based on the different color of the code -- (page 4, 2.1, and fig. 1). Ball fails to explicitly disclose *a visual indicator showing concentrations of the user-specified concept of interest at locations within the electronically stored document, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user specified concept of interest.* However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations of words or *concept of interest* —"taxonomy"--in a vertical scroll bar-- *a first axis*—using horizontal marks or indicia. The frame also contains a horizontal scroll bar-- *a second axis*—for showing the concentrations of the words in the document using vertical marks or indicia (fig.2, col.3, lines 27-67). Therefore, it would have been obvious to one of ordinary skill

in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-67). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed.

Regarding claim 2, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation where a document contour showing undulating lines of code—*contour graph image*—showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 3, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation *or line graph* showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 4, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of two bars—*bar graph*-- containing color-coded rows of pixels showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 5, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display containing color-coded lines scattered—*scatter diagram*-- throughout a visual representation of a document showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 7, which depends on claim 31, Ball discloses a red box for showing the same portion of the document in three different scaled panes -- (page 4, lines 19-20, and fig. 1). Ball fails to explicitly teach *accepting user input moving said slider to a second section of said visual indicator and responsive to movement of said slider to said second section of said visual indicator, displaying a section of said electronically stored document corresponding to said second section of said visual indicator* . However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations vertical, and horizontal scroll bars, which contain cars that enable a user to display of corresponding portions of a document in a screen. The cars are moved up and down within their respective scroll bars-- *movement of said slider to said second section*-- to a second location for displaying a corresponding section in the document (fig.2, col.1, lines 30-41, col.3, lines 28-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-67). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed using the scroll bars or axes.

Regarding claim 8, which depends on claim 1, Ball discloses the display of an elongated thumbnail version of a document with portions color-coded—*annotated*-- to identify a user's concept of interest discussion (page 4, 2.1, and fig. 1).

Claims 11-15, 17-18, 33 are directed towards a computer program product on a computer-readable medium for storing the steps found in claims 1-5, 7-8, and 31 respectively, and therefore are similarly rejected.

Claims 21-25, 27-28 are directed towards a computer system for implementing the steps found in claims 1-5, and 7-8, therefore are similarly rejected.

Regarding claim 31, which depends on claim 1, Ball discloses the display of a red box for showing the same portion of the document in three different scaled panes -- (page 4, lines 19-20 and fig. 1). Ball fails to explicitly teach *displaying a slider on said visual indicator, said slider highlighting a section of said visual indicator corresponding to said section of said electronic document displayed on said display* . However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations vertical, and horizontal scroll bars, which contain cars that enable a user to display of corresponding portions of a document in a screen. The cars are moved up and down within their respective scroll bars to by covering or highlighting the position of the scrollbars to where the cars were moved to (fig.2, col.1, lines 30-41, col.3, lines 28-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the

benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-67). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed using the scroll bars or axes.

Claim 35 is directed towards a computer system for implementing the steps found in claim 31, and therefore are similarly rejected.

9. Claims 10, 20, 30, 32, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aalbersberg (Pat.# 5,946,678, 8/31/99, filed 1/11/95, as disclosed in IDS paper 3), in view of Wroblewski.

Regarding independent claim 10, Aalbersberg discloses a window for receiving query words–"car, sales, Europe"-- indicating user's concepts of interest input (c. 2, L. 1-58, and fig. 2).

Furthermore, Aalbersberg discloses the display of a results window having a list of indicators—*selectable concept indicators*-- presenting the relevance of the query words or concepts of interest using color scheme. The indicators also have a view button, which allows a user to select the corresponding indicator to view the full text of the document containing the query words. In response to the selection of the view button, the document is retrieved and analyzed for the corresponding query words present in the document. Each query word is retrieved, and displayed using the color scheme (col. 6, L. 1-67, and fig. 4-5). Aalsbersberg fails to explicitly disclose *a visual indicator showing concentrations of the first-user specified concept in said electronically stored document, wherein the visual indicator comprises a first axis*

representing locations within the electronically stored document and a second axis representing concentrations of a user specified concept of interest. However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations of words or *concept of interest* —"taxonomy"--in a vertical scroll bar-- *a first axis*—using horizontal marks or indicia. The frame also contains a horizontal scroll bar-- *a second axis*—for showing the concentrations of the words in the document using vertical marks or indicia (fig.2, col.3, lines 27-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Aalbersberg, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-67). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed.

Claim 20 is directed towards a computer program product on a computer-readable medium for storing the steps found in claim 10, and therefore is similarly rejected.

Claim 30 is directed towards a computer system for implementing the steps found in claim 10, and therefore is similarly rejected.

Regarding claim 32, which depends on claim 10, Aalbersberg discloses the display of a results window having a list of indicators—*selectable concept indicators*-- presenting the relevance of the query words or concepts of interest using color scheme to indicate which concept or query words are present in the document. The indicators also have a view button, which allows a user to select the corresponding indicator—first, second, third indicator, etc., to

view the full text of the document containing concentration of the location of the query words or *concept of interest*. In response to the selection of the view button, the document is retrieved and analyzed for the corresponding query words present in the document. Each query word is retrieved, and displayed using the color scheme (col. 6, L. 1-67, and fig. 4-5). Aalsbersberg fails to explicitly disclose *displaying in the visual indicator showing concentrations of the second user-specified concept of interest.* However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations of words or *concept of interest* — "taxonomy"--in a vertical scroll bar-- *a first axis*—using horizontal marks or indicia. The frame also contains a horizontal scroll bar-- *a second axis*—for showing the concentrations of the words in the document using vertical marks or indicia (fig.2, col.3, lines 27-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Aalbersberg, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-67). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed using the scroll bars or axes, instead of looking at the whole document which makes it more difficult to do the spotting.

Claim 34 is directed towards a computer program product on a computer-readable medium for storing the steps found in claim 32, and therefore is similarly rejected.

Claim 36 is directed towards a computer system for implementing the steps found in claim 32, and therefore is similarly rejected.

Response to Arguments

10. Applicant's arguments with respect to claim 1-5, 7-8, 10-15, 17-18, 20-25, 27-28, and 30-36 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 1, the applicant indicates that Ball does not teach the newly added limitation of providing a visual indicator containing axes showing the concentration of location of concept of interest discussion (page 11, lines 2-29). The applicant is directed towards the new rejection of this newly added limitation found above.

Moreover, the applicant notes that Ball does not teach the newly added limitation of showing the concentration of user-specified concept of interest, nor discussion providing a visual indicator containing two axes (page 11, lines 2-29). The Applicant is directed towards the new rejection of this newly added limitation found above.

Regarding claims 2-5, and 8, the applicant submits that Ball does not teach a contour graph image, a line graph, a bar graph, and a scatter diagram (page 12, lines 14-24). The examiner disagrees, because regarding claim 2, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation where a document contour showing undulating lines of code—*contour graph image*—showing the relative strength of the concept of interest-- analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 3, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation *or line graph* showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 4, Ball discloses a right pane—*visual indicator*-- for indicating the display of two bars—*bar graph*-- containing color-coded rows of pixels showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 5, Ball discloses a right pane—*visual indicator*-- for indicating the display containing color-coded lines scattered—*scatter diagram*-- throughout a visual representation of a document showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Claims 11-15, 18, 21-25, and 28 are rejected at least based on the rationale set forth above regarding claims 1-5.

With respect to claims 7, and 31, the applicant states that neither Ball, nor Greenberg teach the showing concentrations of user-specified concept of interest on a first and second axes

(page 13, lines 11-25). The applicant is directed towards the new rejection of this newly added limitation in claim 1, found above.

Claims 33, 17, 35, and 27 are rejected at least based on the rationale set forth above regarding claims 7, and 31.

With respect to claims 10, 32, 20, 34, 30, and 36, the applicant states that the claims as amended are not taught by Aalbersberg (page 14, lines 6-26). The applicant is directed towards the new rejection of the newly amended claims found above.

Moreover, the applicant states that Aalbersberg does not teach or suggest a visual indicator which has two axes (page 15, lines 25-28). The applicant is directed towards the new rejection of the newly amended claims found above.

Conclusion

I. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (703) 306-5543. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (703) 308-5186. However, in such a case, please allow at least one business day.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this Action should be mailed to:

Director United States Patent and Trademark Office

Washington, D.C. 20231

Or faxed to:

- **(703) 703-872-9306,** (for **all** Formal communications intended for entry)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

CESAR B PAULA
Patent Examiner
Art Unit 2178

2/20/04